

Title (en)
PREFILLED SYRINGE WITH BREAKAWAY FORCE FEATURE

Title (de)
VORGEFÜLLTE SPRITZE MIT LOSBRECHKRAFTFUNKTION

Title (fr)
AMPOULE-SERINGUE À CARACTÉRISTIQUE DE FORCE DE RUPTURE

Publication
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Application
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Abstract (en)

An injector comprising: a prefilled syringe comprising: a container portion defining a fluid chamber; a needle having an injecting tip configured to deliver the medicament from the fluid chamber into an injection site; a plunger movable within the fluid chamber; a housing that houses the prefilled syringe, the housing comprising: a retractable guard that is movable between a protecting position in which the needle is disposed within the retractable guard and an injecting position in which a tip of the needle is exposed for insertion into the injection site; a coil spring configured to bias the retractable guard toward the protecting position, and an interference component having at least one abutment arm, the abutment arm having at least one tapered portion and an engagement portion axially adjacent to the at least one tapered portion, the engagement portion configured to resist the movement of the retractable guard when the retractable guard is moved from the protecting position toward the injecting position; and an energy source configured to bias the plunger with a force selected to produce an injecting pressure on the medicament in the fluid chamber to inject the medicament from the fluid chamber through the needle to the injection site, wherein a breakaway force is configured to be applied to the retractable guard to overcome the resistance to movement of the retractable guard caused by the engagement portion of the abutment arm, wherein the breakaway force is equal to or greater than a trigger force, wherein the trigger force causes injection of the medicament.

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Citation (applicant)

- US 6391003 B1 20020521 - LESCH JR PAUL R [US]
- US 2011144594 A1 20110616 - SUND JULIUS [US], et al
- US 8021335 B2 20110920 - LESCH JR PAUL R [US]

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US 201313785582 A 20130305; DK 13757994 T 20130305; EP 13757994 A 20130305; EP 23220455 A 20130305; ES 13757994 T 20130305; FI 13757994 T 20130305; JP 2014561030 A 20130305; JP 2017121208 A 20170621; JP 2019060748 A 20190327; JP 2021017001 A 20210205; JP 2022135474 A 20220829; KR 20147027887 A 20130305; PT 13757994 T 20130305; US 2013029085 W 20130305; US 201514702275 A 20150501; US 201916591169 A 20191002; US 202318169774 A 20230215